

January 21, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge PLO

ARI Job No: SD56

Dear Tom:

Please find enclosed analytical results and the original and a revised copy of the Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted one water sample on January 6, 2011. The samples were received in good condition.

The samples were analyzed for total metals and general chemistry parameters, as requested.

No analytical complications were noted for these analyses. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAD RESOURCES, INC.

Client Services Manager kellyb@arilabs.com

206-695-6211

Enclosures

cc: eFile SD56

KB/kb

Page 1 of____

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around	MAAN	À		Page:		of	1		A		Analytic	cal Resources, Incorporated cal Chemists and Consultants	
ARI Client Company: Swider	, ,	Phone: 9	1-2078		Date:		Ice Prese	ent?		7		4611 Sc	outh 134th Place, Suite 100 , WA 98168	
Client Contact: USU Meoli /TEMF	loya	eri.flo isa.mes	adefin	asmicler. Usmicler.	CONO. of Cooler Jopalers: Temps: 5.3							206-695-6200 206-695-6201 (fax)		
Client Project Name: Bolung Nawt 2	Ĭ							Analysis I	Requested				Notes/Comments	
Client Contact: USA MEOLI / TEM F Client Project Name: DOLLY MANT 2 Client Project#: BP2-B06 MILL TASK	Samplers:	Lisa K	<u>leoli</u>			25	ž		2					
Sample ID	Date	Time	Matrix	No. Containers	Alkatinishy	AMINS	Cations	tid	Salinh					
LDW-Stilling Well	1/6/11	13:00	&W	3										
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Comments/Special Instructions	Relinculated by:	heral	2	Received by: (Signature)				Relinguished (Signature)	by:		1	Received by:		
	Printed Name:	<u>mar</u>	<u>ب</u> ب	Printed Name	. ,			Printed Name	9;	<u> </u>		(Signature) Printed Name	<u>>:</u>	
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Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	ិម្ <u>ង</u> ម៉ូរ៉ូរ៉ូ	Turn-around Requested:				Page: of					Analytical Resources, Incorporated Analytical Chemists and Consultants		
ARI Client Company:		Phone:			Date		Ice Prese				4611 So Tukwila.	uth 134th Place, Suite 100 - WA 98168	
Client Corract: Town Colligan	Nick 6	arsony	W////		Mo. of Coolers	<u>;</u>	elooQ qmeī	f s: **).	107 kg		206-695	-6200 206-695-6201 (fax)	
Client Project Name: 47/11 (IX	Jorga	usen Fo	rao Pi					Analysis I	Requested			Notes/Comments	
Client Project Name: 77/11 2/2.	Samplers.	bisa A	15011		The state of the s	\	<u></u>			a de la companya de l			
7KPL2JOPCID Sample ID	Date	Time	Matrix	NoContainers	est.		CAPAIN	City and the second sec	TU H V	1			
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Comments/Special Instructions	Relinquished by:			Received by	er. m			Relinquished	by:		Received by:		
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	Printed Name.		∫.,	Parted Name;	33.5			Printed Nam	9)		Partied Name		
Company: Company:			<u> </u>			Сотралу:			Company:	- 4			
	Date & Time: Date & Time:			Date & Time:			& Time: Date 8		Date & Time:				

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PRESERVATION VERIFICATION 01/06/11

Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: SD56

PC: Kelly VTSR: 01/06/11

Inquiry Number: NONE

Analysis Requested: 01/06/11

Contact: Ernst, Will

Client: The Boeing Company

Logged by: AV

Sample Set Used: Yes-440 Validatable Package: No

Deliverables:

Project #: BP@2-BOE CMI11 Task 1.1

Project: Boeing Plant 2

Sample Site:

SDG No:

Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN:	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
11-298 SD56A	LDM-Stilling Well						101 767															



Cooler Receipt Form

ARI Client: BORNO	Project Name: <u>POPM</u>	a Plant 2)
COC No(s): (NA)	Delivered by: Fed-Ex UPS Cour	er Hand Delivered Othe	er:
Assigned ARI Job No:SD56	Tracking No:	-	(NA)
reliminary Examination Phase:	-		
Were intact, properly signed and dated custody seals attached to	the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?		(FES)	NO
Were custody papers properly filled out (ink, signed, etc.)	1	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chen		***************************************	
If cooler temperature is out of compliance fill out form 00070F		Temp Gun ID#: 900	74/1019
Cooler Accepted by:	Date: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1420	
	and attach all shipping documents	·	
og-In Phase:	and distant an ampping documents		
			Jan Jan
Was a temperature blank included in the cooler?	Annual Control of the	YES	NO.
	Wet Ice Gel Packs Baggies Foam		
Was sufficient ice used (if appropriate)?	•	NA (YES)	· Same
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		YES	NO.
Were all bottle labels complete and legible?		(YES	NO
Did the number of containers listed on COC match with the numb		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?	***************************************	(YE)	NO
Do any of the analyses (bottles) require preservation? (attach pre	eservation sheet, excluding VOCs)	NA (YES	NO
Were all VOC vials free of air bubbles?	**************************************	(NA) YES	NO
Was sufficient amount of sample sent in each bottle?	معمد معمد معمد و المعمد و المعمد في المعمد المعمد و الم	YES	NO
Date VOC Trip Blank was made at ARI		(NA)	
Was Sample Split by ARI: NA YES Date/Time:	Equipment	Split by	<i>F.</i>
AV	Alestu -	1435	
	:Time:		
** Noury Project Manage	er of discrepancies or concerns **		and the second second
Sample ID on Bottle Sample ID on COC	Sample ID on Bottle	Sample ID on	606
and the second s		<u> </u>	-
Additional Notes, Discrepancies, & Resolutions:		1	
Additional Notes, Discrepancies, & Resolutions:			
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Die Dele		,	
By: Date: Small Air Bubbles Peabubbles LARGE Air Bubbles	Small → "sm"		
2-4 mm > 4 mm	Peabubbles > "pb"		
	Large > "lg"	and the second s	
	ratge 12 sig.		

SAMPLE RESULTS-CONVENTIONALS SD56-The Boeing Company



Matrix: Stormwater

Data Release Authorized:

Reported: 01/21/11

1: (

Project: Jorgensen Forge PLO Event: 7KPL2JOR

Date Sampled: 01/06/11 Date Received: 01/06/11

Client ID: LDW-Stilling Well ARI ID: 11-298 SD56A

Analyte	Date Batch	Method	Units	RL	Sample
рH	01/06/11 010611#1	EPA 150.1	std units	0.01	6.73
Alkalinity	01/07/11 010711#1	SM 2320	mg/L CaCO3	1.0	55.2
Carbonate	01/07/11	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Bicarbonate	01/07/11	SM 2320	mg/L CaCO3	1.0	55.2
Hydroxide	01/07/11	SM 2320	mg/L CaCO3	1.0	< 1.0 U
Conductivity	01/11/11 011111#1	EPA 120.1	umhos/cm	1.00	7,400
Salinity	01/11/11 011111#1	SM 2520.B	ppt	0.10	4.00
Chloride	01/18/11 011811#1	EPA 300.0	mg/L	100	2,510
Sulfațe	01/08/11 010811#1	EPA 300.0	mg/L	10.0	363

RL Analytical reporting limit

U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS SD56-The Boeing Company



Matrix: Stormwater

Data Release Authorized:

Reported: 01/21/11

Project: Jorgensen Forge PLO Event: 7KPL2JOR

Date Sampled: NA

Date Received: NA

Analyte	Method	Date	Units	Blank	ID
Conductivity	EPA 120.1	01/11/11	umhos/cm	< 1.00 U	×
Salinity	SM 2520.B	01/11/11	ppt	< 0.10 U	
Chloride	EPA 300.0	01/18/11	mg/L	< 0.1 U	
Sulfate	EPA 300.0	01/08/11	mg/L	0.10	

LAB CONTROL RESULTS-CONVENTIONALS SD56-The Boeing Company



Matrix: Stormwater
Data Release Authorized:
Reported: 01/21/11

Project: Jorgensen Forge PLO

Event: 7KPL2JOR

Date Sampled: NA Date Received: NA

Analyte/Method	QC ID	Date	Units LCS	Spike Added	Recovery
рН ЕРА 150.1	ICVL	01/06/11 s	td.units 7.02	7.00	0.02
Salinity SM 2520.B	ICVL	01/11/11	ppt 43,300	47,600	91.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS SD56-The Boeing Company



Matrix: Stormwater

Data Release Authorized Reported: 01/21/11

Project: Jorgensen Forge PLO Event: 7KPL2JOR

Date Sampled: NA Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
Alkalinity ERA #P114506	SM 2320	01/07/11	mg/L CaCO3	99.4	102	97.5%
Conductivity Ricca #3193	EPA 120.1	01/11/11	umhos/cm	993	1,000	99.3%
Chloride ERA #230109	EPA 300.0	01/18/11	mg/L	3.1	3.0	103.3%
Sulfate ERA #220109	EPA 300.0	01/08/11	mg/L	3.1	3.0	103.3%

REPLICATE RESULTS-CONVENTIONALS SD56-The Boeing Company



Matrix: Stormwater

Data Release Authorized: Reported: 01/21/11

Project: Jorgensen Forge PLO

Event: 7KPL2JOR Date Sampled: 01/06/11 Date Received: 01/06/11

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: SD56A	Client ID: LDW-Sti		ullerannen i in la la varia i i i i i i i i i i i i i i i i i i	- Military de de diseas antenes e commente e	ramen van de krander – Pampan Jacobse von von von de Staten – Administration – VIII de de 1117/000	
рН	EPA 150.1	01/06/11	std units	6.73	6.74	0.01
Alkalinity	SM 2320	01/07/11	mg/L CaCO3	55.2	55.3	0.2%
Carbonate	SM 2320	01/07/11	mg/L CaCO3	< 1.0	< 1.0	NÀ
Bicarbonate	SM 2320	01/07/11	mg/L CaCO3	55.2	55.3	0.2%
Hydroxide	SM 2320	01/07/11	mg/L CaCO3	< 1.0	< 1.0	NA
Conductivitý	EPA 120.1	01/11/11	umhos/cm	7,400	7,400	0.0%
Salinity	SM 2520.B	01/11/11	ppt	4.00	4.00	0.0%

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference



INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Lab Sample ID: SD56A

LIMS ID: 11-298

Matrix: Stormwater

Data Release Authorized: (1)

Reported: 01/14/11

Sample ID: LDW-Stilling Well

SAMPLE

QC Report No: SD56-The Boeing Company

Project: Jorgensen Forge PLO

7KPL2JOR

Date Sampled: 01/06/11 Date Received: 01/06/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	01/07/11	6010B	01/10/11	7440-70-2	Calcium	0.05	62.5	
3010A	01/07/11	601 0B	01/10/11	7439-95-4	Magnesium	0.05	163	
3010A	01/07/11	6010B	01/10/11	7440-09-7	Potassium	0.5	53,4	
3010A	01/07/11	6010B	01/10/11	7440-23-5	Sodium	0.5	1,460	

U-Analyte undetected at given RL RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Lab Sample ID: SD56MB

LIMS ID: 11-298

Matrix: Stormwater Data Release Authorized:

Reported: 01/14/11

Sample ID: METHOD BLANK

QC Report No: SD56-The Boeing Company

Project: Jorgensen Forge PLO

7KPL2JOR

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	01/07/11	6010B	01/10/11	7440-70-2	Calcium	0.05	0.05	U
3010A	01/07/11	6010B	01/10/11	7439-95-4	Magnesium	0.05	0.05	Ü
3010A	01/07/11	6010B	01/10/11	7440-09-7	Potassium	0.5	0.5	Ū
3010A	01/07/11	6010B	01/10/11	7440-23-5	Sodium	0.5	0.5	Ü

U-Analyte undetected at given RL RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET

TOTAL METALS

Page 1 of 1

Lab Sample ID: SD56LCS

LIMS ID: 11-298

Matrix: Stormwater
Data Release Authorized:

Reported: 01/14/11

Sample ID: LAB CONTROL

QC Report No: SD56-The Boeing Company

Project: Jorgensen Forge PLO

7KPL2JOR

Date Sampled: NA Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	Recovery	Q
Calcium	6010B	10.1	10.0	101%	
Magnesium	6010B	10.4	10.0	104%	
Potassium	:6010B	10.6	10.0	106%	
Sodium	6010B	10.7	10.0	107%	

Reported in mg/L

N-Control limit not met Control Limits: 80-120%